



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/678,338	10/03/2000	L. David Chambers	ASTR-0003	4820
27964	7590	09/21/2007	EXAMINER	
HITT GAINES P.C. P.O. BOX 832570 RICHARDSON, TX 75083			ELALLAM, AHMED	
		ART UNIT	PAPER NUMBER	
		2616		
		NOTIFICATION DATE		DELIVERY MODE
		09/21/2007		ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

docket@hittgaines.com

Office Action Summary	Application No.	Applicant(s)	
	09/678,338	CHAMBERS, L. DAVID	
Examiner	Art Unit		
AHMED ELALLAM	2616		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) Responsive to communication(s) filed on 28 June 2007.

2a) This action is **FINAL**. 2b) This action is non-final.

3) Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) Claim(s) 1-43 is/are pending in the application.
4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5) Claim(s) _____ is/are allowed.
6) Claim(s) 1-43 is/are rejected.
7) Claim(s) _____ is/are objected to.
8) Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) The specification is objected to by the Examiner.

10) The drawing(s) filed on _____ is/are: a) accepted or b) objected to by the Examiner.

 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) All b) Some * c) None of:
1. Certified copies of the priority documents have been received.
2. Certified copies of the priority documents have been received in Application No. _____.
3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) Notice of References Cited (PTO-892)
2) Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.

4) Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____ .
5) Notice of Informal Patent Application
6) Other: ____.

DETAILED ACTION

This office action is responsive to RCE filed on 06/28/2007.

Claims 1-43 are pending.

Claim Objections

1. Claims 1, 5, and 10 are objected to because of the following informalities:

In claims 1 5 and 10 the term "couplable" should be changed to "coupled".

The rational for the objection of the above claims is that such term has a tendency to suggest or make the limitation following optional but does not requires steps to be performed, or by claim language that does not limit a claim to a particular structure. See MPEP§ 2111.04.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 41-43 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 41, the specification as originally filed doesn't adequately describe the feature of "the MCU, the switching partition, and the access nodes interact **within a single** private branch exchange".

Claims 42-43 depends from claim 41, thus they are subject to the same rejection.

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 42 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 42, the limitation " the private branch exchange is a distributed private branch exchange" is confusing, because it is already stated in the parent claim 41 that the private branch exchange is a single private branch exchange. Stated differently, a single private branch exchange cannot be designated as a distributed private branch exchange.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. Claims 1, 3, 5-9, 11, 13, 15-19, 21, 23, 25-29, 31, 33, 35-38, and 40 are rejected under 35 U.S.C. 102(b) as being anticipated by Andrews et al, US (5,878,130).
Hereinafter referred to as Andrews.

Regarding claims 1 and 11, with reference to figures 1 and 12, Andrews discloses a distributed switching platform and a method for operating the distributed switching platform, couplable to public network including a TCP/IP network, see column 5, lines 20-27 (claimed an Internet Protocol (IP) network), comprising:

A primary central controller PCC (30) couplable to the IP network, and configured to generate control signals for controlling distribution of calls, see column 4, lines 55-67; (claimed main control unit (MCU) couplable to the IP network and configured to generate call and control processing commands);

A call service center 501 (figure 12) coupled through the WAN interface 472, (claimed switching partition couplable to the IP network) comprising:

Status/control process 504 in combination with inbound telephone network interface 68 and outbound telephone network interface 68', (claimed input output distributor (IOD)), wherein status/control process 504 transmits control signals to the telephony interface 68, 68' and to switching matrix 506 for providing a request service to or from callers 18 and or 20 (claimed access nodes), see column 14, lines 5-29. (Claimed an input-output distributor (IOD) configured to receive call and control processing commands in a packet based protocol), and a circuit-switched matrix and line interface coupled to the IOD and configured to provide a "*sole interface*" to a plurality of access nodes, the IOD configured to convey the call and call processing

commands to the circuit-switched matrix and line interface to allow, based thereon, the circuit switched matrix and line interface, to control access to the plurality of access nodes as in claim 1, and generating a call and control processing commands with a main control unit coupled to IP network; coupling an input-output distributor (IOD) to the IP network; providing a “*sole interface*” interface to a plurality of access nodes via a circuit-switched matrix and line interface coupled to the IOD, the IOD receiving the call and control processing commands in a packet based protocol and conveying the call and processing commands to the circuit-switched matrix and line interface to allow, based thereon, the circuit-switched matrix and line interface to control access to the plurality of access nodes, as indicated in independent claim 11).

Further, with regard to figure 12, Andrews shows a connection traversing the call center through the switch fabric, the connection is between a caller and the primary central controller. (Claimed each connection between said access nodes and said MCU traverses said circuit switched matrix and said interface).

Examiner interpreted the call center 501 to be the claimed “*sole interface*”.

Regarding claim 21, with reference to figures 1 and 12, Andrews discloses a distributed switching platform means coupled to public network including a TCP/IP network, see column 5, lines 20-27 (claimed an Internet Protocol (IP) network), comprising:

A primary central controller PCC (30) couplable to the IP network, and configured to generate control signals for controlling distribution of calls, see column 4, lines 55-67;

(claimed main control unit (MCU means) couplable to the IP network and configured to generate call and control processing commands);

A call service center 501 means (figure 12) coupled through the WAN interface means 472, (claimed switching partition means couplable to the IP network) comprising:

Status/control process means 504 in combination with inbound telephone network interface means 68 and outbound telephone network interface means 68', (claimed input output distributor means (IOD)), wherein status/control process 504 means transmits control signals to the telephony interface means 68, 68' and to switching matrix means 506 for providing a request service to or from callers means 18 and or 20 (claimed access nodes), see column 14, lines 5-29. (Claimed an input-output distributor (IOD) means configured to receive call and control processing commands in a packet based protocol, circuit-switched matrix and line interface means coupled to the IOD means and configured to provide a sole interface to a plurality of access nodes and MCU means, the IOD means configured to convey the call and call processing commands to the circuit-switched matrix and line interface to allow, based thereon, the circuit switched matrix and line interface, to control access to the plurality of access nodes).

Examiner interpreted the call center 501 to be the claimed "sole interface".

Further, with regard to figure 12, Andrews shows a connection traversing the call center through the switch fabric, the connection is between a caller and the primary central controller. (Claimed each connection between said access nodes and said MCU traverses said circuit switched matrix and said interface).

Regarding claim 31, with reference to figures 1, 5 and 12, Andrews discloses a distributed call service center (claimed enterprise call center) couplable to public network including a TCP/IP network, see column 5, lines 20-27 (claimed an Internet Protocol (IP) network), comprising:

A primary central controller PCC (30A') (primary control center 30A, as in figure 5) couplable to the IP network, and configured to generate control signals for controlling distribution of calls, see column 4, lines 55-67; (claimed primary main control unit (MCU) A Redundant central controller 30B' (Redundant central controller 30B as in figure 5), coupled to the IP network; wherein the primary and the redundant controller are geographically separated, and wherein one of the controller can assume the control of system 200, see column 9, lines 22-39. (Claimed a primary main control unit (MCU) coupled to a first location associated with the IP network; a secondary MCU coupled to a second location associated with the IP network, at least one of the primary and secondary MCUs generating call and processing commands);

A call service center 501 (figure 12) coupled through the WAN interface 472, (claimed switching partition couplable to the IP network) comprising:

Status/control process 504 in combination with inbound telephone network interface 68 and outbound telephone network interface 68', (claimed input output distributor (IOD)), wherein status/control process 504 transmits control signals to the telephony interface 68, 68' and to switching matrix 506 for providing a request service to or from callers 18 and or 20 (claimed access nodes), see column 14, lines 5-29.

(Claimed an input-output distributor (IOD) configured to receive call and control processing commands in a packet based protocol, and a circuit-switched matrix and line interface coupled to the IOD and configured to provide a sole interface between a plurality of access nodes and said primary and secondary MCUs, the IOD configured to convey the call and call processing commands to the circuit-switched matrix and line interface to allow, based thereon, the circuit switched matrix and line interface, to control access to the plurality of access nodes)..

Examiner interpreted the call center 501 to be the claimed "sole interface".

Further, with regard to figure 12, Andrews shows a connection traversing the call center through the switch fabric, the connection is between a caller and the primary central controller. (Claimed each connection between said access nodes and said MCU traverses said circuit switched matrix and said interface).

Regarding claim 3, 13, and 23, with reference to figure 12, Andrews shows a WAN (Wide Area Interface) in connection between the central controller and the call service center 501 (claimed switching partition as in claim 3, and IOD as in claim 13, and switching partition means as in claim 23). (Claimed MCU (means) and the switching partition (means)/ IOD are geographically separable).

Regarding claims 5, 15 and 25, with reference to figure 9, Andrews shows Administrative means 32A (claimed application server) coupled to the central controller 30A'. (Claimed application server (means) couplable to and configured to communicate with the MCU).

Regarding claim 35, with reference to figure 9, Andrews shows Administrative means 32A (claimed application server) coupled to primary the central controller 30A'. (Claimed application server couplable to at least one of the primary and secondary MCUs).

Regarding claims 6, 16, 26, with reference to figure 9, Andrews shows a secondary central controller 30B' coupled to Internet 408. (Claimed MCU (means as in claim 26)) is a primary MCU and the distributed switching platform (means as in claim 26) further comprising a secondary MCU couplable to the IP network).

Regarding claims 8, 18, 28 and 36, with reference to figure 9, Andrews discloses a primary and a redundant central controllers 32A and 32B' respectively. Further, Andrews discloses a "hot-standby approach" in which a redundant controller is idle while the primary controller control the system. See column 9, lines 32-35. (Claimed only one primary and secondary MCUs provides the call and call processing commands at anytime, the one of the primary and secondary MCUs being in control of the enterprise call center).

Regarding claims 7, 17, 27, with reference to figure 5, Andrews discloses that the primary central controller and the redundant central controller are geographically separated. See column 9, lines 7-9.

Regarding claims 9, 19 and 29, Andrews discloses the hot-standby approach in which a redundant controller is idle while the primary controller control the system. See column 9, lines 32-35. Further, Andrew discloses updating and or changing the system

configuration data stored in the central controller database by the central controller. See column 7, lines 24-29.

Regarding claim 33, with reference to figure 12, Andrews shows the call center 501 is coupled to the primary and the standby controllers through a WAN interface. (Claimed first switching partition is coupled to a third location associated with the IP network)

Regarding claim 37, with reference to figure 9, Andrews discloses a primary and a redundant central controllers 32A and 32B' respectively. Further, Andrews discloses a "hot-standby approach" in which a redundant controller is idle while the primary controller control the system. See column 9, lines 32-39. (Examiner interpreted the Claimed only one primary and secondary MCUs provides the call and call processing commands at anytime, the one of the primary and secondary MCUs being in control of the enterprise call center).

Andrews discloses the hot-standby approach in which a redundant controller is idle while the primary controller control the system. See column 9, lines 32-35. Further, Andrew discloses updating and or changing the system configuration data stored in the central controller database by the central controller. See column 7, lines 24-29.

Regarding claim 37, with reference to figure 9, Andrews discloses a primary and a redundant central controllers 32A and 32B' respectively. Further, Andrews discloses a "hot-standby approach" in which a redundant controller is idle while the primary controller control the system. See column 9, lines 32-39. In addition, Andrew discloses updating and or changing the system configuration data stored in the central controller

database by the central controller. See column 7, lines 24-29. (Claimed one of primary and secondary MCUs which is in control of the enterprise call center updates a database associated with the other one of the primary and secondary MCUs).

Regarding claim 38, Andrews discloses that caller are connected through an SS7 based network. See column 5, lines 21-27. (Claimed enterprise call center is coupled to PSTN via one of the access nodes).

Regarding claim 40, Andrews discloses that the functional components can be embodied as one or more computer program processes running on one or more general purpose computers. See column 15, lines 17-47. (Claimed wherein the enterprise call center of claim 31, at least one of the primary and secondary MCUs and switching partition are embodied in a sequence of instructions executable on a general purpose computer).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 2, 10, 12, 20, 22, 30, 32 and 39 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews in view of Darland et al, US 2003/0128698. Hereinafter referred to as Darland.

Regarding claims 2, 12, 22, and 32, Andrews discloses all the limitation of respective parent claims 1, 11, 21 and 31 as discussed above.

The difference between Andrews' teaching and claims 2, 12, 22, 32 is that Andrews whiles discloses using a TCP/IP protocols for communicating between the controller unit and the "switching partition" as discussed above (see also figure 10 for internet interface to the controller 472), it doesn't specify using a user datagram Protocol for communicating between the controller and the switching partition.

However, Darland discloses using UDP/IP protocol for communicating between a switch controller and ISN component (call center). See paragraph [0042]. It would have been obvious to a person of ordinary skill in the art, at the time the invention was made to use the UDP/IP protocol for communicating between the controllers of Andrews and the call service center 501 (figure 12) (claimed switching partition) using the UDP/IP communicating method of Darland so that fast exchange of control signals can be provided by eliminating the TCP signaling bandwidth consumption due to signaling feature implied by using the TCP/IP standard. It is also advantageous to use the UDP/IP protocol in case of voice calling services using the Internet.

Regarding claims 10, 20, 30, and 39, as discussed above with reference to the parent respective base claims 1, 11, 21 and 31, Andrews discloses service center (claimed switching partition comprising an IOD and a circuit-switched matrix and line interface that provides an interface to the plurality of access node). Andrews does not disclose a second service center, (claimed second switching partition comprising a

second IOD and a second circuit-switched matrix and line interface coupled to the second IOD that provides an interface to additional access node).

However, with reference to figures 1 and 15 Darland discloses a call center 108a connected to a call center 112b (Intelligent Services networks INS#1 and INS#2) through a WAN (Wide Area Network) connection. See paragraph [0207].

Therefore, It would have been obvious to a person of ordinary skill in the art, at the time the invention was made to have other service centers similar to service center 501 (figure 12) of Andrews interconnected using the WAN interface 472 (Figure 12) as taught by Darland so to provide the calling services to subscribers belonging to the other call centers. A skilled person would recognize the desirability to create other call center to accommodate an increasing number of calling services requests.

6. Claims 4, 14, 24 and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Andrews in view of Sonesh et al, US (6,614,783). Hereinafter referred to as Sonesh.

Regarding claims 4, 14, 24 and 34, Andrews discloses access node of being access nodes belonging to a variety of networks, comprising SS7 and TCP/IP based networks among others, see column 4, lines 55-64 and column 5, lines 21-27,

However, Andrews does not specify that the access nodes are selected from a group consisting of a digital instrument, analogue instrument, analog trunk and digital trunk.

However, with reference to figure 1, Sonesh shows in the same field of endeavor of calling centers, a telephone 104 communicating over the PSTN 111, wherein the link between the telephone and the PSTN may be an analogue trunk or digital trunk. See column 7, lines 62-65. (Claimed digital instrument, analogue instrument, analog trunk and digital trunk).

It would have been obvious to a person of ordinary skill in the art, at the time the invention was made to have the access node of Andrews being those of Sonesh. A person of skill in the art would do so by recognizing the benefit of providing a variety of calling services to a mix of subscribers to POT (Plain Old Telephony) services and internet telephony services regardless of the geographical location of the subscribers (Andrews, column 5, lines 19-27). The benefit would be the ability to generate more revenues by the provisioning of calling services by Andrews's system to the variety of networks regardless of the type of access nodes in use by the variety the networks (Andrews, column 5, lines 19-27).

Response to Arguments

7. Applicant's arguments filed 03/29/2007 have been fully considered but they are not persuasive.

Applicant argues that *the IP network does not appear in the cited figures, which describe "public network, long distance carriers" networks.* In response Examiner asserts that Andrews gives an example of the public network of being MCI's TCP/IP-based control network, such network is an IP network.

Applicant also alleged, referring to figure1, that Andrews networks are not used in communications between controller 30 and a switching platform. Examiner disagrees, figure 12 show "partition" 501 in communication between controllers 30A and 30B, the partition including switching matrix 506.

Applicant also argue that Examiner is erroneous in equating element 501 in Figure 12 to the switching partition of the present claims, because collective elements 501 of Figure 12 in Andrews includes Agent Workstations 482 etc., and at least one public network 14 as elements therein. In response Examiner notes that the partition 501 includes the switching matrix 506.

Applicant used figure 3 of the Application to be compared with figure 12 of Andrews, and pointing out that the access nodes of Andrews (18 and 19) have multiple interfaces with the controller, while another is through public network 12 through call center 501, then to controller 30. Examiner notes that it is the interface through the public network (which is an IP network as discussed above) that is of concern to the claimed subject matter. In particular, the access nodes of Andrews are in communication with the controller(s) through the partition 501, the network being an IP network.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to AHMED ELALLAM whose telephone number is (571) 272-3097. The examiner can normally be reached on 7-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (571) 272-3179. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AHMED ELALLAM
Examiner
Art Unit 2616
9/12/07


CHI PHAM
SUPERVISORY PATENT EXAMINER
9/14/07